

1. What are the two values of the Boolean data type? How do you write them?

Ans: The two values of the Boolean data type are "True" and "False", we write them in as **True** and **False** based up on the condition satisfaction.(if the condition is satisfies then we write it as True and if not we write as False).

2. What are the three different types of Boolean operators?

Ans: the three Boolean operators are **AND**, **OR** and **NOT**

3. Make a list of each Boolean operator's truth tables (i.e. every possible combination of Boolean values for the operator and what it evaluates).

Ans: Truth Table

A	B	A AND B(a&b)	A OR B(a b)	NOT A (! a)
True	True	True	True	False
True	False	False	True	False
False	True	False	True	True
False	False	False	False	True

4. What are the values of the following expressions?

(5 > 4) and (3 == 5) → Ans: **False**

Not (5 > 4) → Ans: **False**

(5 > 4) or (3 == 5) → Ans: **True**

Not ((5 > 4) or (3 == 5)) → Ans: **False**

(True and True) and (True == False) → Ans: **False**

(Not False) or (not True) →Ans: **True**

5. What are the six comparison operators?

Ans: The six comparison operators are **Equal (==)**, **not equal (!=)**, **Greater than (>)**, **Less than (<)**, **Greater than or equal to (>=)** and **Less than or equal to (<=)**.

6. How do you tell the difference between the equal to and assignment operators? Describe a condition and when you would use one.

Ans: **Equal** ('==') operator is used to check whether the two values are equal or not if they are equal return True else False.

Assignment ('=') operator is used to assign the values to the variables or objects.

7. Identify the three blocks in this code:

spam = 0 → **here the assigning the spam value as 0(zero)**

if spam == 10: **# if spam is equal to 1 then output is 'eggs' if not it goes to another condition**

print('eggs')

if spam > 5: **# here also comparing whether greater than or not**

print('bacon')

else: **# if all above conditions will fail the this else block will run and get output**

print('ham')

print('spam')

print('spam')

8. Write code that prints Hello if 1 is stored in spam, prints Howdy if 2 is stored in spam, and prints Greetings! if anything else is stored in spam.

Ans: **Code:**

Spam = input("")

If spam == 1:

Print ('Hello')

If spam == 2:

Print ('Howdy')

else :

Print ('Greetings')

9.If your programme is stuck in an endless loop, what keys you'll press?

Ans : At endless loop condition where the loop is running infinite time I will try to stop the running code by clicking the "**CTRL+C**" where it stop the execution of the code.

10. How can you tell the difference between break and continue?

Ans: **break** : In break statement the ctrl get exists from the loop where as

Continue control statement remains within the loop.

11. In a for loop, what is the difference between range(10), range(0, 10), and range(0, 10, 1)?

Ans: In for loop **range(start,end,step)**

Range(10) : it means the loop runs from 0 to 9 (10-1) times (n-1)

Range(1,10) : it means loop runs from 1 and end at 10th time

Range(0,10,1) : it mean 0 to 10 is number of times the for loop executes and 1 is the step value

12. Write a short program that prints the numbers 1 to 10 using a for loop. Then write an equivalent program that prints the numbers 1 to 10 using a while loop.

Ans: Program using the for loop

```
for i in range(1,11):
```

```
print( i )
```

Program using for loop:

```
i = 1
```

```
While i<=10:
```

```
Print( i )
```

```
i+=1
```

13. If you had a function named bacon() inside a module named spam, how would you call it after importing spam?

Ans: The function can be called as **spam.bacon()**